

SW800

SUBWOOFER

SW SUBWOOFER — Designed for low frequency enhancement.

SW-800 WOOFER SPECIFICATIONS

FREQUENCY RESPONSE
35 Hz to 150Hz +/- 3 dB

RECOMMENDED AMPLIFIER POWER
10 to 150 watts

SENSITIVITY
88 dB 2.83V @ 1 meter.

IMPEDANCE
6 Ohm nominal

HEIGHT X WIDTH (With frame)
14-1/4" H x 10- 3/16" W

HOLE CUTOUT
13-1/8" H x 9-1/8" W

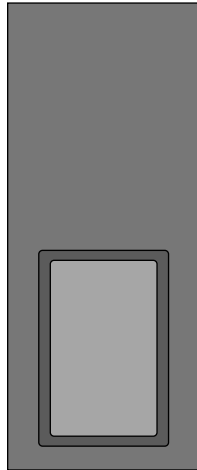
DEPTH BEHIND WALL (Assumes 1/2" drywall) Without In-Wall Enclosure SW-800 3-1/8"

CONNECTIONS
Accommodates up to 12 gauge wire

SW-800 Subwoofer



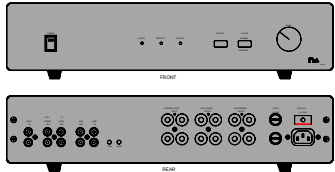
SW-800 In-wall Enclosure



INTRODUCTION

The SW-800/SA-100/SW-800 Enclosure, together comprise an in-wall powered subwoofer system. This system is ideal anywhere additional bass response is desired, but bulky traditional floor standing subwoofer enclosures just won't work. Because of it's modular design the system can be configured for the exact requirements of your application.

SA-100 Subwoofer Amplifier



FEATURES AND BENEFITS

Component System Design
A system can consist of up to four SW-800 in-wall subwoofers, each with SW-800 in wall enclosures, and one SA-100 subwoofer amplifier. Vary the number of SW-800's to the size of the room. For example, in a large Home Theater you would place three or four SW-800's and one amplifier. In a small room like a den you would place one SW-800, controlled by one SA-100 amplifier.

Mica-Filled Polypropylene Woofer
The mica-filled polypropylene cone achieves new standards in transient speed and dynamic range because of its phenomenal rigidity and high stiffness to mass ratio. The inverted butyl surround, the BumpBack™ magnet and the rigid steel basket are all optimized for large excursions of

the cone. In this way, an SW-800 delivers exceptionally deep and detailed bass at realistic sound pressure levels, without the mechanically induced limiting and distortion of typical designs.

X-Matrix™ Reinforced Baffle
The X-Matrix baffle design uses specially molded ribs to add rigidity to the baffle. Rigidity reduces resonance and coloration, resulting in more detail and more realism at high volume levels.

Absolutely Flush to the Wall Appearance
The unique mounting system of the SW loudspeakers powerfully clamps the frame to the bracket, sandwiching the wall material between them. Because the clamping action is totally uniform around the frame, there are no shadows or gaps between the wall and the frame.

Weather-Proof Construction
The subwoofer, the frame and the baffle are all weather-proof. The MicroPerf™ aluminum grille is rust proof and the mounting screws are all stainless steel.

Three Stage Installation System Prevents Theft and Simplifies Painting
You install only the parts you need for a particular stage of construction. When the framing and wiring are finished, you install the SW-800 *in-wall enclosure and bracket*. After the drywall is up, but before the painter begins to paint, you install the *frame* and provide the rustproof aluminum *grilles* to the painter so that they can be painted to match the surroundings. Only when construction is completely finished do you put the valuable *SW-800 subwoofer* in the wall.



BLENDING HIGH FIDELITY AND ARCHITECTURE®

SW-800 In-Wall Subwoofer System

FEATURES AND BENEFITS (CONTINUED)

Infrared Sensor Mount

The speaker baffle has a locator designed for the Niles MS-1 MicroSensor™, a miniature infrared sensor. The MS-1 installs discreetly behind the aluminum grille and therefore minimizes wall clutter in your home. When you want to control your equipment, you simply point your remote control at the speaker with the MS-1 installed from up to 15 feet away.

Low Diffraction, Paintable Aluminum Grilles

The MicroPerf™ aluminum grille has hundreds of precisely sized perforations, creating an

acoustically transparent grille. It is rustproof and can be repainted to match your walls.

SA-100 Subwoofer Amplifier

The SA-100 incorporates an electronic crossover which divides the signal into deep bass (for the SA-100/SW-800) and the midrange and treble (for your main amplifier and speakers). Your existing amplifier and speakers will no longer attempt to reproduce deep bass tones. As a result, there will be a huge (approximately 6dB) increase in their dynamic capability. Your system will sound much better (in the highs and lows) at higher volumes!

There are level, phase and bypass controls enabling you to calibrate the system to any room configuration. With built in music sense circuitry, it turns itself on when you start playing the music, and it shuts itself off when you're through listening.

Up to four SW-800s are powered by a single SA-100 power amplifier. The SA-100 delivers over 140 watts to two subwoofers connected in parallel. Additional subwoofers can be added by combining series and parallel connections to maintain a nominal four Ohm load impedance. The SA-100 has thermal, DC offset and overload protection.

SW-800 In-Wall Enclosure

In developing the Subwoofer system, Niles targeted a problem inherent in conventional in-wall subwoofers – they radiate as much as 50% of their bass output into the surrounding wall. But that's not all. This wayward bass is out of phase with the bass projected forward. When the two waveforms combine, some cancellation occurs, which translates to weakened and unbalanced bass. With the SW-800 enclosure, Niles solves this problem.

APPLICATION NOTES

SA-100 AMPLIFIER SPECIFICATIONS

FREQUENCY RESPONSE

20 Hz to 100Hz

POWER

100 watts RMS into 8 Ohms at less than .05% THD. 140 watts RMS into 4 Ohms at less than 0.1% THD

SIGNAL TO NOISE

Greater than 90dB

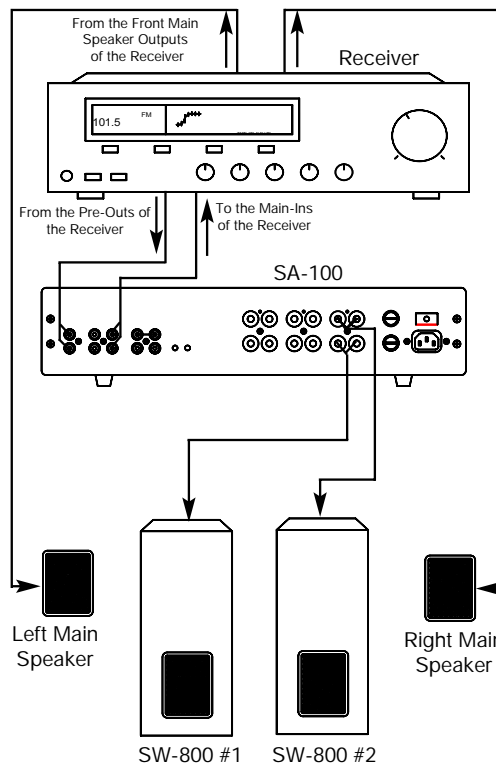
CROSSOVER FREQUENCY

100Hz @ 24dB per octave

OVERALL DIMENSIONS

17" Wide x 3-7/8" High x 12" Deep

SW-800 Subwoofer System Connected to a Receiver with a Pre-Out/Main-In loop.



SW-800 IN-WALL ENCLOSURE SPECIFICATIONS

DESIGN

Acoustic Suspension

CONSTRUCTION

Glued and internally braced 1/2" medium density fiber board, vinyl wrapped

MOUNTING

Supplied screws are driven through adjoining studs into the enclosure.

OVERALL DIMENSIONS

14-1/4" wide x 42-1/4" high x 3-1/4" deep (mounts in a standard stud wall)



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CHARTER MEMBER